

CLAIMS

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1. A plaster board comprising:

a plaster core having a front surface, a back surface, two opposite side surfaces and two opposite end surfaces thereof, and

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a covering base paper that covers the front surface, the back surface, and the two opposite side surfaces of the plaster core,

the plaster core comprising

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a high-density hard edge part comprising the side surface covered with the covering base paper,

at least one high-density part comprising one of the front surface and the back surface covered with the covering base paper and having a density substantially equal to a density of the high-density hard edge part, and

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a central low-density part having a density less than the densities of the high-density hard edge part and the high-density part and being inscribed in the high-density hard edge part and the high-density part,

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wherein the high-density hard edge part part is formed so as to be prevented from including a predetermined position at which a nail for fixing the plaster board is driven along the side surface.

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2. The plaster board as claimed in claim 1, wherein the high-density part has a thickness of 0.1 mm

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through 1.2 mm along a direction perpendicular to one of the front surface and the back surface.

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3. The plaster board as claimed in claim 2, wherein the high-density hard edge part has a thickness of at least 0.1 mm along a direction perpendicular to the side surface comprised in the high-density hard edge part.

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4. The plaster board as claimed in claim 2, wherein the high-density hard edge part has a thickness of 0.1 mm through 15.0 mm along a direction perpendicular to the side surface comprised in the high-density hard edge part.

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5. A method of fabricating a plaster board comprising:

a plaster core having a front surface, a back surface, two opposite side surfaces and two opposite end surfaces thereof,

a front surface covering base paper that covers at least the front surface and the two opposite side surfaces of the plaster core, and

a back surface covering base paper that adheres to the front surface covering base paper and covers the

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back surface of the plaster core,
in which the plaster core has a high-density hard edge
part comprising the side surface,

the method comprising the steps of:

- 5 (a) pouring calcined plaster, water, at least
one kind of additives and/or admixtures into a disk-type
rotary mixer and stirring to prepare a calcined plaster
slurry,
- 10 (b) extracting one portion of a slurry of the
calcined plaster from at least one fractionation port
provided on a peripheral area of the disk-type rotary
mixer and providing the one portion of the slurry as a
slurry for application onto the front surface covering
base paper,
- 15 (c) spreading one portion of the slurry for
application provided on the front surface covering base
paper by a spreader roll to form a spread portion of the
slurry for application while providing non-spread portions
of the slurry for application at both sides of the spread
20 portion,
- (d) delivering the slurry of the calcined
plaster remaining in the disk-type rotary mixer through a
delivery pipe provided on the peripheral area of the disk-
type rotary mixer to a delivering port of the delivery
25 pipe,
- (e) pouring a foam into the remaining slurry of
calcined plaster through one of the delivery pipe and a
foam providing port set on the delivery pipe and uniformly
dispersing the foam to prepare a slurry for core,
- 30 (f) depositing the slurry for core delivered
from the delivering port onto the slurry for application
applied on the front surface covering base paper, and
(g) folding the front surface covering base

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paper and adhering the back surface covering base paper to a margin of the front surface covering base paper to form a stack and subsequently to dry the stack,

5 wherein a length of the spreader roll in axial directions is 98 % through 108 % of a distance between boundary lines of the front surface and the side surface.

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6. The method of fabricating a plaster board as claimed in claim 5, further comprising the step of providing the slurry for application onto the back surface covering base paper and spreading the slurry for application provided on the back surface covering base paper by a spreader roll.

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7. The method of fabricating a plaster board as claimed in claim 5, wherein a thickness of the spread portion is 0.2 mm through 1.5 mm.

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8. The method of fabricating a plaster board as claimed in claim 5, further comprising the step of adding water and a set retarder to the slurry for application.

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9. The method of fabricating a plaster board as claimed in claim 5, further comprising the step of adding
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10. The method of fabricating a plaster board as claimed in claim 6, wherein a thickness of the slurry for application spread by the spreader roll, provided on the back surface covering base paper, is 0.2 mm through
15 1.5 mm.

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11. The method of fabricating a plaster board as claimed in claim 6, further comprising the step of adding water and a set retarder to the slurry for application to be provided onto the back surface covering base paper.

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12. The method of fabricating a plaster board as claimed in claim 6, further comprising the step of adding a foam to the slurry for application to be provided onto the back surface covering base paper.

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